

19-7546



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D5407-045**  
**Job Sheet 193075**



Part No: D5407-045

Job Qty: 2 pcs

Part Name: Strut Assembly



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 4/8/19

Job Tracking No:

Due Date: 4/26/19

Created By: Marie Lajeunesse

Type: SOLD

Description:

Note: DWG REV A SHEETS 3,6 IPP REV:A NEW ISSUE JLM 16.06.06 VERIFIED BY:DD

Ship Via:

## Bill of Materials

## Job Routing

| Op No     | Operation         | Qty      | Start Date | Due Date | Standard  |         | Workcenter/Supplier   |  | Lead Time   | Sign-off |
|-----------|-------------------|----------|------------|----------|-----------|---------|-----------------------|--|-------------|----------|
|           |                   |          |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier |  |             |          |
| 100       | Bandsaw - 1       | 2<br>pcs |            | 4/26/19  | 0.00      | 0.31    | Bandsaw - 1           |  | DAS 52 9-89 | 19/04/18 |
| 110       | HAAS 4 Axis - B4B | 2<br>pcs |            | 4/26/19  | 0.00      | 0.00    | HAAS - 1 - B4B        |  | DAS 52 9-89 | 19/04/18 |
|           |                   |          |            |          |           |         | HAAS - 2 - B4B        |  |             |          |
|           |                   |          |            |          |           |         | HAAS - 3 - B4B        |  |             |          |
|           |                   |          |            |          |           |         | HAAS - 4 - B4B        |  |             |          |
| 120       | QC 2              | 2<br>pcs |            | 4/26/19  | 0.00      | 0.00    | QC 2 - 1              |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 12             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 14             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 17             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 19             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 2              |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 20             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 22             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 23             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 25             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 32             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 33             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 35             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 39             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 4              |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 40             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 44             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 45             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 48             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 49             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 50             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 51             |  | DAS 52 9-89 | 19/04/18 |
|           |                   |          |            |          |           |         | QC 2 - 52             |  |             |          |
|           |                   |          |            |          |           |         | QC 2 - 57             |  |             |          |
| QC 2 - 62 |                   |          |            |          |           |         |                       |  |             |          |



**Container No: S173622**



**Part: D5407 - 045**  
**Job No: 193075**  
**Serial No/Batch: S173622**  
Revision:  
Inspector:  
Exp Date:  
Instructions: Various STC's

**Dart Aerospace Ltd.**  
1270 Aberdeen Street  
Hawkesbury, ON K64 1K7  
CANADA  
TEL.: 1 813 632-6200  
Email: sales@dartaero.com  
www.dartaerospace.com

Date: 04/18/19

Plex 4/8/19 11:29 AM Dart.lajeunesse.marie



Container No: S173622



Part: D5407 - 045

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|                                     |       |         |           |                           |             |
|-------------------------------------|-------|---------|-----------|---------------------------|-------------|
|                                     |       |         |           | B4B                       |             |
|                                     |       |         |           | Handfinish - 1 - 21 - B4B |             |
|                                     |       |         |           | Handfinish - 1 - 22 - B4B |             |
| 150 QC 7                            | 2 pcs | 4/26/19 | 0.00 0.00 | QC 7 - 10                 |             |
|                                     |       |         |           | QC 7 - 13                 |             |
|                                     |       |         |           | QC 7 - 14                 |             |
|                                     |       |         |           | QC 7 - 15                 |             |
|                                     |       |         |           | QC 7 - 17                 |             |
|                                     |       |         |           | QC 7 - 18                 |             |
|                                     |       |         |           | QC 7 - 19                 |             |
|                                     |       |         |           | QC 7 - 2                  |             |
|                                     |       |         |           | QC 7 - 28                 |             |
|                                     |       |         |           | QC 7 - 3                  |             |
|                                     |       |         |           | QC 7 - 30                 |             |
|                                     |       |         |           | QC 7 - 34                 | BL 19-4-23  |
|                                     |       |         |           | QC 7 - 36                 |             |
|                                     |       |         |           | QC 7 - 37                 |             |
|                                     |       |         |           | QC 7 - 41                 |             |
|                                     |       |         |           | QC 7 - 47                 |             |
|                                     |       |         |           | QC 7 - 48                 |             |
|                                     |       |         |           | QC 7 - 51                 |             |
|                                     |       |         |           | QC 7 - 58                 |             |
|                                     |       |         |           | QC 7 - 59                 |             |
|                                     |       |         |           | QC 7 - 60                 |             |
|                                     |       |         |           | QC 7 - 9                  |             |
|                                     |       |         |           | QC 7 - 68                 |             |
|                                     |       |         |           | QC 7 - 50                 |             |
|                                     |       |         |           | QC 7 - 67                 |             |
|                                     |       |         |           | QC 7 - 40                 |             |
| 160 Powdercoat - 1 White GI(A)- B4B | 2 pcs | 4/26/19 | 0.00 0.08 | Powdercoat - 1 - B4B      |             |
|                                     |       |         |           | Powdercoat - 2 - B4B      |             |
|                                     |       |         |           | Powdercoat - 3 - B4B      | BL 19-04-23 |
|                                     |       |         |           | Powdercoat - 4 - B4B      |             |
| 170 QC 3                            | 2 pcs | 4/26/19 | 0.00 0.00 | QC 3 - 10                 |             |
|                                     |       |         |           | QC 3 - 13                 |             |
|                                     |       |         |           | QC 3 - 15                 |             |
|                                     |       |         |           | QC 3 - 17                 |             |
|                                     |       |         |           | QC 3 - 18                 |             |
|                                     |       |         |           | QC 3 - 2                  |             |
|                                     |       |         |           | QC 3 - 28                 |             |
|                                     |       |         |           | QC 3 - 3                  |             |
|                                     |       |         |           | QC 3 - 30                 |             |
|                                     |       |         |           | QC 3 - 34                 |             |
|                                     |       |         |           | QC 3 - 36                 |             |
|                                     |       |         |           | QC 3 - 41                 |             |
|                                     |       |         |           | QC 3 - 51                 |             |
|                                     |       |         |           | QC 3 - 58                 |             |
|                                     |       |         |           | QC 3 - 59                 |             |
|                                     |       |         |           | QC 3 - 68                 |             |
|                                     |       |         |           | QC 3 - 9                  |             |
|                                     |       |         |           | QC 3 - 40                 |             |
|                                     |       |         |           | QC 3 - 19                 |             |
| 180 Small Fab - 2 - B4B             | 2 pcs | 4/26/19 | 0.00 0.29 | Small Fab - 1 - B4B       |             |
|                                     |       |         |           | Small Fab - 2 - B4B       |             |
|                                     |       |         |           | Small Fab - 3 - B4B       |             |
|                                     |       |         |           | Small Fab - 4 - B4B       |             |
|                                     |       |         |           | Small Fab - 5 - B4B       |             |

|                                 |     |         |           |                        |  |
|---------------------------------|-----|---------|-----------|------------------------|--|
|                                 |     |         |           | Small Fab - 6 - B4B    |  |
|                                 |     |         |           | Small Fab - 7 - B4B    |  |
| 190 QC 5                        | 2   | 4/26/19 | 0.00 0.00 | QC 5 - 10              |  |
|                                 | pcs |         |           | QC 5 - 12              |  |
|                                 |     |         |           | QC 5 - 17              |  |
|                                 |     |         |           | QC 5 - 18              |  |
|                                 |     |         |           | QC 5 - 19              |  |
|                                 |     |         |           | QC 5 - 22              |  |
|                                 |     |         |           | QC 5 - 24              |  |
|                                 |     |         |           | QC 5 - 3               |  |
|                                 |     |         |           | QC 5 - 43              |  |
|                                 |     |         |           | QC 5 - 49              |  |
|                                 |     |         |           | QC 5 - 51              |  |
|                                 |     |         |           | QC 5 - 58              |  |
|                                 |     |         |           | QC 5 - 68              |  |
|                                 |     |         |           | QC 5 - 9               |  |
|                                 |     |         |           | QC 5 - 50              |  |
|                                 |     |         |           | QC 5 - 30              |  |
|                                 |     |         |           | QC 5 - 40              |  |
| 200 Packaging 3-1 - Stock - B4B | 2   | 4/26/19 | 0.00 0.00 | Packaging 3 - 1 - B4B  |  |
|                                 | pcs |         |           | Packaging 3 - 2 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 3 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 4 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 5 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 6 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 7 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 8 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 9 - B4B  |  |
|                                 |     |         |           | Packaging 3 - 10 - B4B |  |
|                                 |     |         |           | Packaging 3 - 11 - B4B |  |
|                                 |     |         |           | Packaging 3 - 12 - B4B |  |
|                                 |     |         |           | Packaging 3 - 13 - B4B |  |
|                                 |     |         |           | Packaging 3 - 14 - B4B |  |
|                                 |     |         |           | Packaging 3 - 15 - B4B |  |
|                                 |     |         |           | Packaging 3 - 16 - B4B |  |
|                                 |     |         |           | Packaging 3 - 17 - B4B |  |
|                                 |     |         |           | Packaging 3 - 18 - B4B |  |
|                                 |     |         |           | Packaging 3 - 19 - B4B |  |
|                                 |     |         |           | Packaging 3 - 20 - B4B |  |
|                                 |     |         |           | Packaging 3 - 21 - B4B |  |
|                                 |     |         |           | Packaging 3 - 22 - B4B |  |
|                                 |     |         |           | Packaging 3 - 23 - B4B |  |
|                                 |     |         |           | Packaging 3 - 24 - B4B |  |
|                                 |     |         |           | Packaging 3 - 25 - B4B |  |
|                                 |     |         |           | Packaging 3 - 26 - B4B |  |
|                                 |     |         |           | Packaging 3 - 27 - B4B |  |
|                                 |     |         |           | Packaging 3 - 28 - B4B |  |
|                                 |     |         |           | Packaging 3 - 29 - B4B |  |
|                                 |     |         |           | Packaging 3 - 30 - B4B |  |
|                                 |     |         |           | Packaging 3 - 31 - B4B |  |
|                                 |     |         |           | Packaging 3 - 32 - B4B |  |
|                                 |     |         |           | Packaging 3 - 33 - B4B |  |
|                                 |     |         |           | Packaging 3 - 34 - B4B |  |
|                                 |     |         |           | Packaging 3 - 35 - B4B |  |
|                                 |     |         |           | Packaging 3 - 36 - B4B |  |
| 210 QC 21 - SA                  | 2   | 4/26/19 | 0.00 0.00 | QC 21 - SA - 21        |  |
|                                 | pcs |         |           | QC 21 - SA - 70        |  |
|                                 |     |         |           | QC 21 - SA - 53        |  |
| Part Op 100 - (Bandsaw)         |     |         |           | Cut at 18.600"         |  |
|                                 |     |         |           | DAS                    |  |
|                                 |     |         |           | 35                     |  |
|                                 |     |         |           | 9-89                   |  |
|                                 |     |         |           | APR 26 2019            |  |
|                                 |     |         |           | APR 27 2019            |  |
|                                 |     |         |           | APR 29 2019            |  |

Descriptions: 110 - (HAAS CNC Vertical Machine)  
 120 - (QC2- Inspect parts off machine FAI/FAIB)  
 130 - (QC8- Inspect parts - second check)  
 140 - (Chemical Conversion Coat per QSI005 4.1)  
 150 - (QC7-Inspect Chemical Conversion Coat)  
 160 - (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum)  
 170 - (QC3- Inspect Part Finish)  
 180 - (Small Fab)  
 190 - (QC5- Inspect part completeness to step on W/O)  
 200 - (Identify as per dwg & Stock Location:\_\_\_\_\_)  
 210 - (QC21- Final Inspection - Work Order Release)

## Job BOM

| Part / Item          | Component Name          | Quantity            | Operation               | Container  |
|----------------------|-------------------------|---------------------|-------------------------|------------|
| M6061T6B0.750X00.750 | 6061-T6 Bar .750 X .750 | 3.1000 ft (1.55 ea) | 100-Bandsaw - 1         | 5172189    |
| AN3-12A              | Bolt                    | 4 2 Ea (1 ea)       | 180-Small Fab - 2 - B4B | 5133167    |
| AN3-13A              | Bolt                    | 4 2 Ea (1 ea)       | 180-Small Fab - 2 - B4B | 5098032    |
| D2690-6              | Lanyard                 | 8 4 pcs (2 ea)      | 180-Small Fab - 2 - B4B | 5167669    |
| D5406-1              | Connector               | 8 4 pcs (2 ea)      | 180-Small Fab - 2 - B4B | 5175271    |
| MS17984-C408         | Quick Release Pin       | 4 2 pcs (1 ea)      | 180-Small Fab - 2 - B4B | 5006853    |
| MS17984-C409         | Pin, Quick Release      | 4 2 Ea (1 ea)       | 180-Small Fab - 2 - B4B | FM136450.0 |
| MS21042L3            | Nut                     | 12 6 Ea (3 ea)      | 180-Small Fab - 2 - B4B | 5157462    |
| MS27039-1-20         | Screw                   | 4 2 Ea (1 ea)       | 180-Small Fab - 2 - B4B | 5094554    |
| NAS1149D0363J        | Washer                  | 32 16 Ea (8 ea)     | 180-Small Fab - 2 - B4B | 5162884    |

MAT  
used  
4.67

## Job Allocations

| Operation               | Component Part       | Required | Inventory | Allocated |
|-------------------------|----------------------|----------|-----------|-----------|
| 100-Bandsaw - 1         | M6061T6B0.750X00.750 | 3        | 17        | 0         |
| 180-Small Fab - 2 - B4B | AN3-12A              | 2        | 263       | 0         |
|                         | AN3-13A              | 2        | 45        | 0         |
|                         | D2690-6              | 4        | 42        | 0         |
|                         | D5406-1              | 4        | 0         | 0         |
|                         | MS17984-C408         | 2        | 9         | 0         |
|                         | MS17984-C409         | 2        | 11        | 0         |
|                         | MS21042L3            | 6        | 3,730     | 0         |
|                         | MS27039-1-20         | 2        | 66        | 0         |
|                         | NAS1149D0363J        | 16       | 1,474     | 0         |

## Part Specifications

Specifications could not be found.

Plex 4/8/19 11:29 AM Dart.lajeunesse.marie

## INSPECTION SHEET

| Rev | Date     | Change    | Revised by                                                                               | Approved                                                                              |
|-----|----------|-----------|------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| A   | 17.01.31 | New issue | KJ  |  |



**DART**  
AEROSPACE

## Route update only

7

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev J

UK

Oct 24/19



19-7546

Route update only

|                                                                                                  |  |                                                                                                                    |  |                                                                                                                           |  |                                                                                                                 |  |                                                                                                                                      |  |                                                                                                                                                     |  |
|--------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------|--|---------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------|--|--------------------------------------------------------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Job: 193075                                                                                      |  | DISPOSITION                                                                                                        |  | DEPARTMENT/PROCESS                                                                                                        |  |                                                                                                                 |  |                                                                                                                                      |  |                                                                                                                                                     |  |
| Part No. 15467-0755                                                                              |  | Rework <input type="checkbox"/><br>Scrap <input type="checkbox"/><br>Use-as-is <input checked="" type="checkbox"/> |  | Skid-tube <input type="checkbox"/><br>Machining <input checked="" type="checkbox"/><br>Large Fab <input type="checkbox"/> |  | Cross tube <input type="checkbox"/><br>Small Fab <input type="checkbox"/><br>Finishing <input type="checkbox"/> |  | Eng. (Non-AW) <input type="checkbox"/><br>Prod. Eng. Coord. <input type="checkbox"/><br>Rec/Store/Packaging <input type="checkbox"/> |  | Engineering <input type="checkbox"/><br>Water Jet <input type="checkbox"/><br>Supplier <input type="checkbox"/><br>Quality <input type="checkbox"/> |  |
| Date: 19-04-15                                                                                   |  | Sequence #: 110                                                                                                    |  | QTY Affected: 1                                                                                                           |  |                                                                                                                 |  | MRB (QSI042)                                                                                                                         |  |                                                                                                                                                     |  |
| Description Work Order Deviation                                                                 |  |                                                                                                                    |  | Disposition                                                                                                               |  |                                                                                                                 |  | Completed By                                                                                                                         |  |                                                                                                                                                     |  |
| Machine mark was buffed out. In one 2" region one thickness is at 0.744 (avg = 0.750 +0.03 -0.0) |  |                                                                                                                    |  | Acceptable. Affected region is near one end and not subject to high buckling loads.                                       |  |                                                                                                                 |  | 12 15/4/16                                                                                                                           |  |                                                                                                                                                     |  |
|                                                                                                  |  |                                                                                                                    |  |                                                                                                                           |  |                                                                                                                 |  | Lead hand / Supervisor                                                                                                               |  |                                                                                                                                                     |  |
|                                                                                                  |  |                                                                                                                    |  |                                                                                                                           |  |                                                                                                                 |  | B.A 19-04-20                                                                                                                         |  |                                                                                                                                                     |  |
|                                                                                                  |  |                                                                                                                    |  |                                                                                                                           |  |                                                                                                                 |  | QC / QA Coordinator                                                                                                                  |  |                                                                                                                                                     |  |
|                                                                                                  |  |                                                                                                                    |  |                                                                                                                           |  |                                                                                                                 |  | DAS 68 9-89                                                                                                                          |  |                                                                                                                                                     |  |
|                                                                                                  |  |                                                                                                                    |  |                                                                                                                           |  |                                                                                                                 |  | APR 26 2019                                                                                                                          |  |                                                                                                                                                     |  |
| Root Cause                                                                                       |  | FAULT CATEGORY                                                                                                     |  |                                                                                                                           |  |                                                                                                                 |  |                                                                                                                                      |  |                                                                                                                                                     |  |
| Operator <input type="checkbox"/>                                                                |  | <input type="checkbox"/> Pressure/Forced                                                                           |  | <input type="checkbox"/> Contamination                                                                                    |  | <input type="checkbox"/> Power Loss/Surge                                                                       |  | <input type="checkbox"/> Positioned Wrong                                                                                            |  |                                                                                                                                                     |  |
| Manufacturing Process <input type="checkbox"/>                                                   |  | <input type="checkbox"/> Bending                                                                                   |  | <input type="checkbox"/> Misaligned/off center                                                                            |  | <input type="checkbox"/> Folio/Program                                                                          |  | <input checked="" type="checkbox"/> Outside Tolerance                                                                                |  |                                                                                                                                                     |  |
| Equip/Tooling <input type="checkbox"/>                                                           |  | <input type="checkbox"/> Crushing                                                                                  |  | <input type="checkbox"/> BOM/Route                                                                                        |  | <input type="checkbox"/> Grain Direction                                                                        |  | <input type="checkbox"/> Drawing                                                                                                     |  |                                                                                                                                                     |  |
| Handling/Preservation <input type="checkbox"/>                                                   |  | <input type="checkbox"/> Cracks                                                                                    |  | <input type="checkbox"/> Broken/Damage/Defect                                                                             |  | <input type="checkbox"/> Weld                                                                                   |  | <input type="checkbox"/> Finish                                                                                                      |  |                                                                                                                                                     |  |
| Material <input checked="" type="checkbox"/>                                                     |  | <input type="checkbox"/> Crimp/Kink/Ripple/Wave/Twist                                                              |  | <input type="checkbox"/> Incomplete/Unclear Instructions                                                                  |  | <input type="checkbox"/> Wrong Stock Pulled                                                                     |  | <input type="checkbox"/> Part Lost/Missing                                                                                           |  |                                                                                                                                                     |  |
| Product Improvement <input type="checkbox"/>                                                     |  | <input type="checkbox"/> Marks/Chatter                                                                             |  | <input type="checkbox"/> Drill Holes                                                                                      |  | <input type="checkbox"/> Out of Sequence                                                                        |  | <input type="checkbox"/> Misread                                                                                                     |  |                                                                                                                                                     |  |
| Process Improvement <input type="checkbox"/>                                                     |  | <input type="checkbox"/> Mislabeled                                                                                |  | <input type="checkbox"/> Fit/Function                                                                                     |  | <input type="checkbox"/> Off-set/Set-up                                                                         |  |                                                                                                                                      |  |                                                                                                                                                     |  |
| Human Factors <input type="checkbox"/>                                                           |  | Other/Details:                                                                                                     |  |                                                                                                                           |  |                                                                                                                 |  |                                                                                                                                      |  |                                                                                                                                                     |  |